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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,672	04/21/2006	Makoto Sanpei	1210360-089	7213

35684 7590 11/13/2008

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EXAMINER	
LENIHAN, JEFFREY S	

ART UNIT	PAPER NUMBER
1796	

NOTIFICATION DATE	DELIVERY MODE
11/13/2008	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/576,672	SANPEI ET AL.	
	Examiner	Art Unit	
	Jeffrey Lenihan	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *04/21/2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of **50 to 150 words** (emphasis added). It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 2, 4, and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The independent claim 2 recites a damper comprising "a vibration body, a mass member, and an elastic body through which the mass member is joined to the vibration body, wherein the body is formed..." The examiner notes that the claim does not recite whether the term "the body" is intended to refer to the vibration body or the elastic body.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikemoto et al, US20020068797, in view of Adur et al, US4833195, and Hong, US20040226393.

7. Ikemoto discloses a rubber composition comprising 1) a rubber compound composed of at least one of an ethylene-propylene-diene (EPDM) terpolymer and an ethylene-propylene (EPM) copolymer, 2) a peroxide vulcanizing agent, 3) a resorcinol-based compound, and 4) a melamine resin (¶0008-0011) (claims 1, 2). Example 1 of Ikemoto discloses a rubber composition comprising 100 parts of ESPRENE 501A, an EPDM rubber having a Mooney viscosity (ML 100 °C) of 43 and comprising 50% ethylene, 4% diene, and, by extension, 46% propylene and 4.2 parts di-t-butyl peroxy-diisopropylbenzene as a peroxide vulcanizing agent (¶0038) (claims 1, 2). Example 7

of Ikemoto discloses a rubber composition prepared in a manner similar to Example 1, except ESPRENE 201, an EPM rubber having a Mooney viscosity (ML 100 °C) of 43, was used instead of EPDM. Ikemoto teaches that the rubber compositions of US20020068797 may be used as rubber vibration insulators (¶0036).

8. As stated above, Ikemoto recites that the rubber compound is composed of at least one of an EPDM and EPM; Ikemoto therefore teaches the use of a rubber composition comprising a blend of EPDM and EPM. The examiner therefore takes the position that it would have been obvious to one of ordinary skill in the art at the time the invention was made to prepare a blend rubber comprising ESPRENE 501A and ESPRENE 201 to prepare a rubber composition as described in US20020068797 (claim 2).

9. Ikemoto fails to teach either the addition of an α-olefin oligomer having a number average molecular weight of 300-1400 to EPDM/EPM, or a damper comprising the rubber composition as recited in the instant claims.

10. Adur discloses a thermoplastic pelletizable polymer composition comprising an oligomer or degraded polyolefin and an olefinic elastomer (Column 2, lines 61-63), with the oligomer and elastomer being combined in a ratio from 90:10 to 20:80 (Column 4, lines 57-60) (claims 1, 2). Said oligomer may be prepared from one or more suitable α-olefins such as 1-hexene, and is characterized by a number average molecular weight less than 15,000 (Column 3, lines 19-30) (claims 1, 2). Ethylene-propylene copolymers and ethylene-propylene-diene terpolymers are suitable for use as the olefinic elastomer (Column 4, lines 18-26). Adur discloses that the combination of the low molecular

weight oligomer with the olefinic elastomer results in a composition having a high melt flow (Column 3, lines 4-15).

11. Both Ikemoto and Adur are directed towards the processing of EPDM/EPM and fabrication of articles from those elastomers. The examiner therefore takes the position that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the rubber composition of Ikemoto by the addition of an oligomer of a polyolefin such as 1-hexene having a number average molecular weight less than 15,000, as taught by Adur, for the purposes of improving the melt flow of the rubber composition.

12. Hong discloses that a conventional crankshaft is typically mounted at one end with a flywheel and is equipped at the other with a damper pulley (claims 1, 2, 5, 6) (¶0003). Said damper pulley typically includes a hub, a vibro-isolating rubber, and an inertia ring (claims 1-4) (¶0004).

13. As noted previously in this Office Action, Ikemoto discloses that rubber compositions comprising EPDM and/or EPM may be used as rubber vibration insulators. As the structure of a crankshaft fitted with a flywheel and damper pulley conventional in the art, the examiner takes the position that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a rubber composition comprising EPDM and/or EPM and a low molecular weight oligomer, rendered obvious by the combined teachings of Ikemoto and Adur, as the vibro-isolating rubber in a crankshaft as disclosed by Hong, for the purpose of produce a crankshaft with suitable vibration-damping capabilities.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nonaka et al, US5446097, teaches the addition of a styrenic oligomer having a number average molecular weight of 400-2000 to EPDM or EPM. Gros, US3884993, teaches EPDM and EPDM rubbers having improved processability due to the addition of a low molecular weight polymer. Crissy, US20050050985, and Troyer, US2972904, disclose the structure of a crankshaft with a flywheel and damper.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Lenihan whose telephone number is (571)270-5452. The examiner can normally be reached on Monday through Thursday from 7:30-5:00 PM, and on alternate Fridays from 7:30-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James J. Seidleck/
Supervisory Patent Examiner, Art Unit 1796

Jeffrey Lenihan
Examiner
Art Unit 1796

/JL/